"Ypsoria hadesia Schs,  $\circ$  type". The male is labeled "Psorya hadesia Schs, type", but does not bear the type number label. The female probably should be considered to be the holotype, but because the generic name on the name label is erroneous and because the female does not agree with the generic diagnosis, I prefer to select it as the lectotype and I so designate and label it. The male was not mentioned in the specific description, but the part of the generic diagnosis relating to the antennae was obviously prepared from the male, not the female, which has simple, not pectinate, antennae.

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# NOMENCLATURAL PROBLEMS IN SIX GENERA OF TENEBRIONIDAE (COLEOPTERA)

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ABSTRACT—The nomenclature of the following generic names in 6 genera of the Tenebrionidae is explained (the first name in each series is now the valid name): Adelina, Doliema; Cheirodes, Anemia; Cymatothes, Pyanisia; Hypogena, Ulosonia; Mylaris, Iphthinus, Nyctobates; Iphthiminus, Iphthinus of authors. The type-species of Hypogena and Iphthinus are designated. Iphthiminus is newly proposed for the genus previously known as Iphthinus.

For the past few years I have been assembling a catalogue of the Tenebrionidae of America, north of Mexico, and have been re-examining all original descriptions of genera and species and designations of type-species. Because the world Tenebrionidae are so well catalogued—Gebien finished his second catalogue in 1948—my task has not been difficult. However, I did find a few things that had been overlooked or misinterpreted by previous workers, and because these things are somewhat complicated and require explanations, I am presenting them before the catalogue is published. My investigations also apply to other areas of the world because the genera also contain non-North American species.

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All but one of the 6 problems discussed below concern generic names first published and made available by Dejean in his catalogue of Coleoptera. Dejean did not morphologically describe any tenebrionid genera or species; his catalogue was merely a list of genera or species, with an author given for both and a locality given for the species. Many of the generic names were being used for the first time. Some of the genera included only names of undescribed species, that is, nomina nuda; such generic names are, of course, themselves nomina nuda. On the other hand, many generic names used for the first time included names of previously described species, and those generic names were thereby made available, according to Article 16(a) (v) of the International Code of Zoological Nomenclature. However, most older authors considered a generic name to be available only when a morphological description of the genus was given, and they therefore rejected all instances of possible authorship of genera by Dejean. Most modern authors have perpetuated these incorrect interpretations.

All of these problems and the resultant changes concern only nomenclature. No species have been transferred from genus to genus, no species have been synonymized, and no generic taxa are newly synonymized, though in 1 case generic names are newly synonymized. All classification is still exactly as given in Gebien's and Blackwelder's catalogues. The first 4 problems discussed below are quite simple: the junior synonym becomes the senior synonym. However, the fifth problem is quite complicated: 2 genera are involved, junior and senior synonyms change places, a generic name is transferred, and a new generic name is proposed.

### Adelina Dejean

Adelina Dejean, 1835;315. Type-species: Cucujus planus Fabricius; monotypic. Doliema Pascoe, 1860:50. Type-species: Doliema platisoides Pascoe; monotypic.

These names apply to a genus usually known by the name *Doliema*; the genus is in the Ulomini. The names have been subjective synonyms for many years because their type-species are congeneric. *Doliema* had been used as the valid name because previous cataloguers had considered *Adelina* Dejean to be a *nomen nudum*. However, the inclusion of *plana* Fabricius, originally described as *Cucujus planus*, made the name *Adelina* available; 3 other included species were actually *nomina nuda*. Dejean attributed the name *Adelina* to Chevrolat, but Chevrolat had used the name only in a collection or in an unpublished manuscript.

The older name Adelina is the valid name for this genus. This change of position of the 2 generic names does not constitute a new synonymy. The genus occurs in all faunal realms except the Ethiopian.

The species are listed under the generic name *Doliema* in Gebien's catalogue (1940:785(592)). (Incidentally, Gebien (1940:785(592)) synonymized *Cucujus planus* Fabricius, 1801 (p. 94) under *Tenebrio planus* Olivier, 1795 (p. 57–14, pl. 2, fig. 17). I believe Olivier's description and illustration of *Tenebrio planus* apply more readily to *Pytho americanus* Kirby, 1837 (p. 165), as was indicated by Blair (1928:5).)

Cheirodes Gené

Cheirodes Gené, 1839:73. Type-species: Cheirodes sardous Gené; monotypic. Anemia Laporte, 1840:218. Type-species: Anemia granulata Laporte; monotypic.

These names apply to a genus usually known by the name Anemia; the genus is in the Opatrini. The names have been subjective synonyms for many years because their type-species are congeneric. Anemia had been used as the valid name because previous cataloguers had credited Cheirodes to Dejean (1834:194) and had considered it a nomen nudum. However, Gené's description of Cheirodes sardous in 1839 made Cheirodes available.

The older name *Cheirodes* is the valid name for this genus. This change of position of the 2 generic names does not constitute a new synonymy. The genus occurs in all faunal realms except the Neotropical. The species are listed under the generic name *Anemia* in Gebien's catalogue (1938:422(549)).

#### Cymatothes Dejean

Cymatothes Dejean, 1834:208. Type-species: Helops undatus Fabricius; monotypic.

Pyanisia Laporte, 1840:235. (Proposed as a subgenus of *Helops* Fabricius). Type-species: *Helops undatus* Fabricius; designated by Hope, 1840:133.

These names apply to a genus usually known by the name *Pyanisia*; the genus is in the Amarygmini. The names have been objective synonyms for many years because they are isogenotypic. *Pyanisia* had been used as the valid name because previous cataloguers had considered *Cymatothes* Dejean to be a *nomen nudum*. However, the inclusion of *undatus* Fabricius, originally described in *Helops*, made the name *Cymatothes* available; 3 other included species were *nomina nuda*. This generic name is occasionally spelled *Cymathotes*, but that is based on a spelling error of Blanchard (1845:33, 36).

The name *Pyanisia* was accidentally spelled *Pyganisia* by Hope when he made the type-species designation.

The older name *Cymatothes* is the valid name for this genus. This change of position of the 2 generic names does not constitute a new synonymy. The genus occurs in the Western Hemisphere. The species are listed under the generic name *Pyanisia* in Gebien's catalogue (1948:514 (859)) and in Blackwelder's catalogue (1945:543).

#### Hypogena Dejean

Hypogena Dejean, 1834:199. Type-species: Tenebrio biimpressus Latreille; here designated.

Ulosonia Laporte, 1840:220. (Proposed as a subgenus of Uloma Dejean). Type-species: Phaleria tricornis Dalman; designated by Lucas, 1920:665.

These names apply to a genus usually known by the name *Ulosonia*; the genus is in the Ulomini. The names have been subjective synonyms for many years because their type-species are congeneric. *Ulosonia* had been used as the valid name because previous cataloguers had considered *Hypogena* Dejean to be a *nomen nudum*. However, the inclusion of *biimpressa* Latreille and another previously described species made the name *Hypogena* available; 8 other included species were *nomina nuda*. The type-species was originally described as *Tenebrio biimpressus* Latreille.

The type-species of *Ulosonia* was listed by Laporte as *tricornis* Palisot, but it was originally described as *Phaleria tricornis* Dalman.

The older name *Hypogena* is the valid name for this genus. This change of position of the 2 generic names does not constitute a new synonymy. The genus occurs in the Western Hemisphere. The species are listed under the generic name *Ulosonia* in Gebien's catalogue (1940:786(593)) and in Blackwelder's catalogue (1945:533).

# Mylaris Pallas

Mylaris Pallas, 1781:37. Type-species: Tenebrio gigas Linnaeus; designated by Guérin-Méneville, 1844:120.

Iphthiaus Dejean, 1834:203. Type-species: Tenebrio gigas Linnaeus; here designated. [NEW SYNONYMY].

Nyctobates Guérin-Méneville, 1834:33. Type-species: Tenebrio gigas Linnaeus; original designation.

#### Iphthiminus Spilman, n. gen.

Iphthiminus Spilman. Type-species: Iphthinus italicus Truqui; here designated. Iphthinus (spelled Iphthimus) of Truqui, 1857:92, and subsequent authors.

Both of these genera are in the Tenebrionini. In the first genus, the names *Mylaris* and *Nyctobates* have been objective synonyms for a long time because they are isogenotypic. The genus has been called *Nyctobates* by most authors even though *Mylaris* was recorded as being older and even though Guérin-Méneville in 1844 pointed out that *Nyctobates* should be the junior synonym. Incidentally, Pallas correctly attributed *Tenebrio gigas* to Linnaeus, but he unnecessarily renamed it *Mylaris gigantea*; Guérin-Méneville credited *T. gigas* to Fabricius and accidentally spelled the generic name *Mylasis*; Motschulsky (1872:23) made an incorrect type-species designation and accidentally spelled the generic name *Milaris*.

The generic name *Iphthinus* has not previously been in synonymy with Mylaris and Nyctobates. In 1834 Dejean listed 30 species under the generic name Iphthinus Dejcan in his catalogue; 7 of those species had been previously described. Then in 1857 Truqui presented the first morphological description of Iphthinus, but he used the spelling Iphthimus. One of the 4 species which Truqui included and described was the new species Iphthimus italicus; Motschulsky (1872:24) designated it type-species. Since that time all authors have considered: 1) Truqui to be the author of the generic name; 2) Iphthimus to be the correct spelling; 3) italicus to be the type-species. However, the facts are that: 1) Dejean is the author of the name because his inclusion of previously described species made the name available; 2) Iphthinus is the correct spelling and Truqui's Iphthimus must be considered a spelling error because he did not actually emend the name; 3) the genus still does not have a type-species because "italicus Bonelli? (Upis)", as included by Dejean, was a nomen nudum in 1834.

None of the 7 species available for type-species designation is now in *Iphthinus*. Six of those 7 species are in genera which are younger than *Iphthinus*, and selection of any 1 of them would change the name of another genus to *Iphthinus*. The above selection of *Tenebrio gigas* Linnaeus, credited by Dejean to Fabricius, has made *Iphthinus* isogenotypic with *Mylaris* and *Nyctobates*; the name *Iphthinus* is effectively buried under *Mylaris*, the oldest name.

Because of the type-species designations made above, the genus known as *Iphthimus* was left without a generic name. For that genus I have proposed the name *Iphthiminus* and have designated *Iphthinus italicus* Truqui as type-species. In the above synonymy under the new genus *Iphthiminus* I have cited Truqui's (1857:92) description of *Iphthimus*; this makes the new generic name available under Article 13(a) (ii) of the Code.

The genus *Mylaris* includes *gigas* (Linnaeus) and its congeners, all from Mexico and Central and South America; the species are listed under the generic name *Nyctobates* in Gebien's catalogue (1941: 344(639)) and in Blackwelder's catalogue (1945:535).

The genus *Iphthiminus* includes *italicus* (Truqui) and its congeners, all from the western Palearctic and from the Nearctic, the species are listed under the generic name *Iphthimus* in Gebien's catalogue (1941:339(634)).

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